

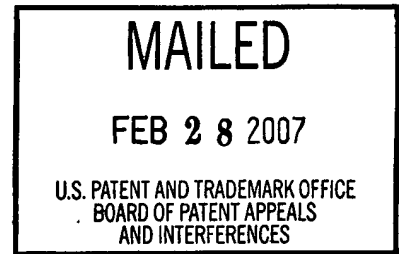
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte HOA LA WILHELM, DAVE ALLEN SOERENS,
LEE DELSON WILHELM, and JAMES HONGXUE WANG

Appeal No. 2007-0188
Application No. 10/683,789

ON BRIEF



Before ADAMS, MILLS and LEBOVITZ, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the
Examiner's final rejection of claims 1, 3-26 and 28, which are all the claims
pending in the application.

Claim 10 is illustrative of the subject matter on appeal and is reproduced
below:

10. A wearable article equipped with a multi-level alert system for
detecting two or more levels of a mammalian substance in a
mammalian extract, the wearable article comprising:
 - a substrate;
 - a target area on the substrate including first and second sub-areas
for receiving the mammalian extract; and
 - a chemical detection system on the target area which initiates a first
signal in response to a first level of the mammalian substance in the

first sub-area and a second signal in response to a second level of the mammalian substance in the second sub-area;
wherein the chemical detection system comprises a first chemical composition on the first sub-area and a second chemical composition on the second sub-area, the first chemical composition detects the first lower level of the mammalian substance and the second chemical composition detects the second higher level of the mammalian substance; and
the mammalian substance being detected is not a hydrogen ion or ion aggregate.

The references relied upon by the Examiner are:

Rittersdorf et al. (Rittersdorf)	3,917,452	Nov. 4, 1975
Springer et al. (Springer)	6,617,488	Sep. 9, 2003
Diehl et al. (Diehl)	US 2003/0158530	Aug. 21, 2003

Ponce et al. (Ponce), "Critical Revision of Presumptive Tests for Bloodstains," Forensic Science Communications, Vol. 1, No. 2, (1999).

GROUND OF REJECTION

Claims 1, 3-26 and 28 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate written descriptive support.

Claims 1, 3-11, 14-20, 22-26 and 28 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Diehl, Ponce and Rittersdorf.

Claims 10, 12, 13, 20 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Springer, Ponce and Rittersdorf.

We reverse.

DISCUSSION

Claim Interpretation:

Claim 10 is drawn to a wearable article. The wearable article comprises three components: (1) a substrate; (2) a target area on the substrate; and (3) a chemical detection system on the target area.

The target area includes a first and second sub-area. The sub-areas receive a mammalian extract¹. The chemical detection system comprises two chemical compositions: a first chemical composition on the first sub-area of the target area; and a second chemical composition on the second sub-area of the target area. The first chemical composition detects the first lower level² of a mammalian substance³ in a mammalian extract and the second composition detects the second higher level⁴ of a mammalian substance in a mammalian extract. The chemical detection system also initiates two signals⁵. A first signal in response to a first level of a mammalian substance in the first sub-area and a

¹ Mammalian extract "refers to any fluid-containing matter which is extracted through the skin or through any opening in a mammal. The term includes, without limitation, urine, feces, perspiration, blood, menses, vaginal discharge, ear wax and the like." Specification, page 3.

² "The first level may be anything greater than zero . . . or may be anything greater than a normal level. . . ." Specification, page 2.

³ The mammalian substance "includes any mammalian substance not normally found in the mammalian extract, and any substance normally found which may be detected at higher or lower than normal levels (i.e., abnormal levels)." Specification, page 3. "Exemplary mammalian substances include hydrogen ion, ion aggregate (i.e., total ion concentration), nitrite, leucocytes, glucose, ketones, blood, phenylalanine, bilirubin, urobilinogen, protein, albumin, specific enzymes, and drugs." Specification, page 2.

⁴ "The second level is greater than the first level." Specification, page 2.

⁵ Signal "refers to any visual, audible, or other signal which alerts a wearer distinctively to a first level of a substance being detected, and distinctively to a second higher level of the substance being detected." Specification, page 3.

second signal in response to a second level of a mammalian substance in the second sub-area.

Claim 10, however, further qualifies that the mammalian substance detected is not a hydrogen ion or ion aggregate.

Appellants concede that wearable articles having alert systems are known in the art for the detection of the presence of a mammalian substance in extracts. Specification, page 1. In addition, Appellants concede that the alert systems on these known wearable articles include chemical detection systems. Id. However, Appellants assert that these known wearable articles only detect an abnormal condition and provide no indication of the severity of the condition. Id. Therefore, Appellants contend “[t]here is a need or desire for wearable articles having alert systems which not only detect abnormalities in mammalian extracts, but which also indicate a level or degree of the abnormality.” Id.

Written Description:

Claims 1, 3-26 and 28 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate written descriptive support.

The Examiner contends that Appellants’ specification “does not disclose the negative limitation of excluding a hydrogen ion or ion aggregate from detection.” Answer, page 3. The Examiner asserts that while Appellants’ specification identifies hydrogen ions and ion aggregates as a mammalian substance, “the genus of mammalian substances has not been sufficiently described in the original specification.” Answer, pages 8-9. We disagree.

Appellants' specification defines "mammalian substance" as including "any mammalian substance not normally found in the mammalian extract, and any substance normally found which may be detected at higher or lower than normal levels (i.e., abnormal levels)." Specification, page 3. In addition, Appellants' specification discloses that "[e]xemplary mammalian substances included hydrogen ion, ion aggregate (i.e., total ion concentration), nitrite, leucocytes, glucose, ketones, blood, phenylalanine, bilirubin, urobilinogen, protein, albumin, specific enzymes, and drugs." Specification, page 2.

It is well established that alternative elements positively recited in a specification may be explicitly excluded in the claims. As set forth in In re Johnson, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977), "[t]he specification, having described the whole, necessarily described the part remaining." In this case, as in Johnson, Appellants have "merely excis[ed] the invention of another^[6], to which they are not entitled. . . ." Id.

Accordingly, we reverse the rejection of claims 1, 3-26 and 28 under the written description provision of 35 U.S.C. § 112, first paragraph.

Obviousness:

The combination of Diehl or Springer with Ponce and Rittersdorf:

The Examiner finds Diehl and Springer teach a wearable article comprising a substrate, target area and chemical detection area as set forth in Appellants' claimed invention. Answer, bridging paragraph, pages 4-5 and page

⁶ See, e.g., Diehl and Springer as discussed by the Examiner (Answer, pages 4-5 and 6) and Appellants (Brief, pages 9-10 and 12-13).

6. The Examiner recognizes, however, that contrary to Appellants' claimed invention, both of Diehl and Springer's wearable article detects a hydrogen ion or ion aggregate. Id. To make up for this deficiency the Examiner relies on Ponce and Rittersdorf.

The Examiner finds Ponce teaches a "test for false results in blood detection using reagents that detect different levels of blood in a sample (Evaluation of the Results, paragraph 3). . . ." Answer, pages 5 and bridging paragraph, pages 6-7. The Examiner recognizes, however, that Ponce "fails to provide motivation to include the chemical compositions in the wearable article of Diehl [or Springer]. . . ." Id. To make up for this deficiency the Examiner finds Rittersdorf teaches "that the detection of blood in urine, feces, and vomit allows for diagnosis of hemorrhages in the urinary tract. . . ." Answer, pages 5 and 7.

Based on this evidence the Examiner finds it would have been prima facie obvious to substitute Ponce's reagents for the reagents used in Diehl or Springer's wearable article "in order to provide a multi-level alert system capable of detecting small amounts of blood in urine. . . ." Id.

"In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant." In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993), citation omitted. "The test for obviousness is not express suggestion of the claimed invention in any or all of the references but rather what the references taken collectively would suggest to those of ordinary skill in the art

presumed to be familiar with them.” In re Rosselet, 347 F.2d 847, 851, 146 USPQ 183, 186 (CCPA 1965).

Prima facie obviousness based on a combination of references requires that the prior art provide “a reason, suggestion, or motivation to lead an inventor to combine those references.” Pro-Mold and Tool Co. v. Great Lakes Plastics Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996).

[E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. . . . The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular.

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (citations omitted).

We agree with the Examiner that Diehl and Springer teach a wearable article within the scope of Appellants’ claimed invention with the exception of detecting a substance that is not a hydrogen ion. However, we disagree with the Examiner’s finding that Ponce and Rittersdorf make up for the deficiencies in Diehl and Springer.

Ponce’s study questions the dependability attributed to presumptive tests for the presence of blood in a sample under forensic investigation. Ponce, page 2. More particularly, Ponce’s study was concerned about the presence of contaminants in a blood sample that may prevent the achievement of a positive test result. Id. Ponce suggests that different reagents are capable of detecting different concentrations of blood in a sample and that the level of detection may be adversely affected by the presence of contaminants. Ponce does not suggest

that one should use two or more different reagents to detect varying levels of blood in a sample.

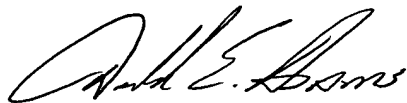
The same is true of Rittersdorf. Rittersdorf teaches the use of test strips to detect blood in a mammalian extract. Rittersdorf discloses the possibility of detecting 5 erythrocytes/mm³ urine (column 2, lines 30-34) and that the detection of small amounts of blood in mammalian extracts is very important for the diagnosis of hemorrhages in the stomach, intestines and urinary tract (column 1, lines 8-11). Rittersdorf does not, however, suggest that one should use two or more different reagents to detect varying levels of blood in a mammalian extract.

Therefore, even if a person of ordinary skill in the art would have been motivated to substitute the blood detecting reagents of Ponce or Rittersdorf for the hydrogen ion detecting reagents of Diehl or Springer, neither Ponce nor Rittersdorf suggest the detection of different amounts of blood in a mammalian extract using first and second chemical compositions as required by claim 10.

Therefore we find no reasonable suggestion for combining the teachings of the references relied upon by the Examiner in a manner which would have reasonably led one of ordinary skill in this art to arrive at Appellants' claimed invention. The initial burden of presenting a prima facie case of obviousness rests on the examiner. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). On these circumstances, it is our opinion that the Examiner failed to provide the evidence necessary to support a prima facie case of obviousness. Accordingly, we reverse the rejection of claims 1, 3-11, 14-20, 22-26 and 28 under 35 U.S.C. § 103 as being unpatentable over the combination

of Diehl, Ponce and Rittersdorf, and the rejection of claims 10, 12, 13, 20 and 21 under 35 U.S.C. § 103 as being unpatentable over the combination of Springer, Ponce and Rittersdorf.

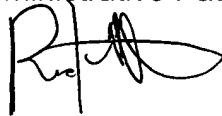
REVERSED



Donald E. Adams
Administrative Patent Judge



Demetra J. Mills
Administrative Patent Judge



Richard M. Lebovitz
Administrative Patent Judge

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